

REMARKS

Claims 1-18, 22-55 and 78-80 are pending in this application. Claims 19-21 and 56-77 were previously canceled and claims 78-80 were previously added. Claims 1, 26 and 78 have been amended herein. In view of these amendments and remarks, Applicants respectfully request reconsideration of the claims.

Claims 1, 2, 6-10, 19, 24, 78 and 79 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2004/0026765 A1 to Currie, *et al.* ("Currie").

Claim 1 recites a transistor being formed in both a first and a second semiconductor material. The transistor has a channel region "formed in the first semiconductor material and at least a portion of the first source and drain regions are formed in the second semiconductor material." Claim 1 also recites that the second semiconductor material is substantially outside a region underlying the first gate electrode. Claim 78 similarly claims a transistor "wherein the first channel region is formed in the first semiconductor material and at least a portion of the first source and drain regions are formed in the second semiconductor material" wherein the second semiconductor material is substantially outside a region underlying the first gate electrode.

The claims were rejected as being anticipated by Currie. Currie shows a semiconductor layer 411 (which Examiner has asserted corresponds to the claimed "first semiconductor material") that is both substantially outside a region underlying the gate electrode and also underlying the gate electrode (see Figure 4 of Currie). Examiner has asserted, "There is nothing in that claim that suggests that the second semiconductor material cannot additionally be underlying the first gate electrode." Applicants have amended claims 1 and 78, respectively, to now recite that "the second semiconductor material is only substantially outside a region

underlying the first gate electrode.” This limitation clearly distinguishes over Currie. For this reason, Applicants respectfully submit that claims 1 and 78 are patentably distinct over Currie.

Examiner recited that “In re claim 19, Currie shows (fig. 4) that a portion of the second source and drain regions are formed in a third semiconductor material (430).” Applicants respectfully note that claim 19 has been previously cancelled. Applicants believe that Examiner intended to reference claim 18, which has the limitation addressed by Examiner. In response, Applicants respectfully note that claim 18 depends from claim 1 – which has been distinguished above – and is hence patentable for the reasons provided above with regard to claim 1 as well as for its further defining recitations.

Because claims 2, 4, 6-10, 18, and 24 depend from claim 1, now amended, and claim 79 depends from claim 78, now amended, Applicants respectfully submit that claims 2, 4, 6-10, 18, 24, and 79 are allowable by reason of their dependence from claims 1 and 78, respectively, as well as for their further respective defining limitations.

Claims 3-5, 22 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Currie as applied to claim 1, and further in view of U.S. Publication No. 2002/0125471 A1 to Fitzgerald, *et al.* (“Fitzgerald”). These claims also depend from claim 1, now amended, and are hence allowable by virtue of their respective dependence on claim 1 as well as for their respective further defining recitations.

Claims 11-18, 25 and 80 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Currie as applied to claims 1, 8, 9, 10 and 80 above and further in view of U.S. Publication No. 2004/0173815 A1 to Yeo, *et al.* (“Yeo”). Claims 11 – 18 and 25 depend from claim 1, which as shown above is patentably distinct over the prior art. Likewise, claim 80 depends from claim 78, which as amended is also patentably distinct over the prior art. These claims are hence

allowable by virtue of their respective dependence from an allowable base claim. Further, Applicants respectfully note that Yeo – which issued as U.S. Patent No. 6,921,913 on July 26, 2005) is commonly owned by the assignee of the present application (Taiwan Semiconductor Manufacturing Co., Ltd.) and hence per 35 U.S.C. § 103(c) does not qualify as prior art under any of sections (e), (f), or (g) of 35 U.S.C. § 102. Accordingly, the Yeo patent application (which published after the filing date of the present application) is not available as prior art, and the combination relied upon by the Examiner cannot be used as grounds for a rejection under 35 U.S.C. § 103(a). The rejected claims 11-18, 25 and 80 are therefore allowable over the rejection. Reconsideration and allowance are requested for claims 11-18, 25 and 80.

Claims 26-36 and 41-55 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,265,239 B1 to Akita, *et al.* (“Akita”) in view of Currie. Claims 37-40 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Akita in view of Currie as applied to claim 26 above, and further in view of Yeo.

Applicants have amended claim 26 to now recite that “a region underlying the first gate electrode is substantially free of the first semiconductor material.” Note, however, that layer 411 of Currie extends throughout the channel region and underlies the gate electrode (see Figure 4). As such, Currie lacks the recited claim element of a first semiconductor material in which “a region underlying the gate electrode is substantially free of the first semiconductor material.” For this reason, Applicants respectfully submit that claim 26 is patentably distinct over Currie.

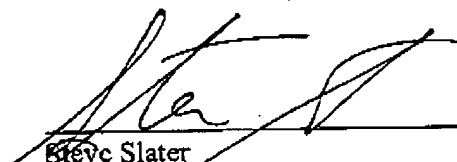
Because claims 27-36, 37-40 and 41-55 depend from claim 26, now amended, Applicants respectfully submit that claims 27-36, 37-40 and 41-55 are allowable by reason of their dependence from claim 26 as well as for their further respective defining limitations. Note

further, as discussed above, that Yeo is not available as a prior art reference under 35 U.S.C. § 103.

In view of the above, Applicants respectfully submit that this response complies with 37 CFR § 1.116 and should therefore be entered, and with said entry that the application is in condition for allowance. No new matter has been added by this amendment. Please charge any additional fees or credit any overpayments to Deposit Account No. 50-1065. If the Examiner has any questions or other correspondence regarding this application, Applicants request that the Examiner contact Applicants' Attorney at the below listed telephone number and address.

Respectfully submitted,

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Date


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